

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraphs on page 6, lines 4-7 with the following amended paragraphs.

Fig. 5 is a schematic diagram of a dynamic coating device according to the present invention; and

Fig. 6 is a side elevational view of a dynamic coating system according to the present invention; and-

Please add the following paragraph on page 6, line 8.

Fig. 7 is a schematic block diagram of an applicator control method of the invention.

Please replace the paragraphs on page 17, line 21 to page 18, line 21 with the following amended paragraphs.

In the practice of the invention, predetermined atomizer control parameters 500, 502, 504 are established that yield an acceptable coating for a particular coating system. The individual parameter values, e.g., cup rotation speed, shaping air supply and coating flow rate, are chosen by correlating each of these variables to droplet size and/or distribution curves (in laboratory) or by actual coated substrate tests which meet with customer approval (in lab or online). Once the desired values of each parameter are selected, a control ratio 506 of the atomization energy, e.g., (bell cup speed (S) multiplied by shaping air supply (V, e.g., volume per minute or pressure), to the coating flow rate (CF) is calculated to yield a (AE/CF) control ratio in which $(AE/CF) = (S \cdot V / CF)$ for the coating system. This control ratio becomes the control management set point for all bell applicators 508 in the given application zone or the coating system. This ratio control technique allows coating film builds to remain fully adjustable by changes in the coating flow rate for a given applicator while the other control variables,

e.g., cup rotation speed and/or shaping air supply, are varied in response to any change in the coating flow rate to automatically rebalance in proportion to the shift in coating flow rate to reestablish the desired control ratio.

The ratio control method of the invention allows all applicators to have independent control features but balances those controls against a single common control ratio (AE/CF), thereby promoting an equal spray dynamic (droplet size and distribution) for all applicators within a given zone or system. In the practice of the invention, the rotational speed, shaping air supply and coating flow rate for each bell applicator in a given coating zone are preferably controlled to produce a similar droplet distribution 510, preferably a distribution with about 40% to about 70% of the droplets being about 15 to about 40 microns in size. Droplets falling outside this size range preferably are about 10 to about 85 microns in size.